Coastal Battlefield Reconnaissance and Analysis (COBRA)

DESCRIPTION

The purpose of the COBRA program is to provide rapid, tactical reconnaissance of the littoral area. The initial focus is detecting the presence of minefields, obstacles and camouflaged defenses on or near potential beach penetration areas during the planning and execution of ship to objective maneuver (STOM). The program will incorporate technologies of Advanced Technology Demonstrations (ATD), legacy and novel systems. One such ATD which demonstrated the greatest potential for satisfying the needs of the COBRA Program employed two gated-intensified multi-spectral cameras mounted and operated from a Pioneer Unmanned Aerial Vehicle (UAV) and integral ground processing equipment. The UAV payload sensor collects and records Multi Spectral Imagery using video standard, COTS equipment. The collected imagery is digitally searched by specialized algorithms within the ground processing equipment to provide rapid, automatic cueing of minefields. Methods to most efficiently deliver detection reports and imagery are being researched in conjunction with Concept of Employment (COE) development. The initial system will consist of a payload and a Ground Processing Requirement (GPR) with connectivity to the MEF IAS. Studies to incorporate the GPR as a modular addition into currently planned systems such as the JSIPS-TEG, TPC, JSTARS-CGS, NUAV TCS are underway. The system will be designed to inter-operate with TUAVs, NUAV TCS and the Marine Corps C4ISR Architecture. The planned system open architecture will facilitate insertion of emerging technological developments from several organizations.

PROCUREMENT PROFILE:	FY00	FY01
Quantity:	*0*	*0*

OPERATIONAL IMPACT

The proliferation of landmines throughout the world has degraded the Marine Corps' ability to conduct surface born STOM. The concept of OMFTS allows us to circumvent mined areas if they can be rapidly and remotely detected. In order to rapidly and automatically conduct reconnaissance at our future areas of operation, we must obtain equipment that exploits the rapidly increasing capabilities of Data Processing Equipment (DPE), Digital Imagery Exploitation Algorithms and Geographic Information Systems. The COBRA Program in conjunction with JSIPS-TEG, TPC and MEF IAS is the first step in that direction and focused on solving one of the most disturbing problems facing current and future forces.

PROGRAM STATUS

The COBRA program entered Phase 1 in FY98. Risk reduction studies and acquisition documentation are being completed in preparation for a mid FY01 Milestone II. IOC is planned for FY05 with a FOC in FY07.

DEVELOPER/MANUFACTURER

TBD